

Internet Interactive, Real-time Video Image Acquisition System Based in Low Earth Orbit

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10.0 ABSTRACT OF THE DISCLOSURE

10.1 A system, method, and apparatus for obtaining and distributing live and real-time video imagery of the Earth, Earth's local space environment, the Moon, celestial bodies and any events or objects that are visible to a Low Earth Orbiting space based video imaging system that is interactively controlled by any operator using an internet connected computer. A LEO spacecraft serves as the platform for the suite of multiaxis controlled video image sensors. The spacecraft's communication system provides the high data rate downlink (and lower rate uplink) through one or several or multiplexed S- or X-band transceivers. The transceiver(s) broadcast the video stream down to one or more remote transceiving stations sited around the world. The transceiving stations are directly connected to the internet and provide live real-time streaming of the downlinked imagery data. The internet connected remote ground stations also provide a real-time interactive control environment (less than 3 seconds for interactive loop) whereby any operator who is authorized can actively control one or more of the onboard video image sensors.